

**Flood Control Project Maintenance
Levee Inspections**

Fall 2013 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

RD0827	Overall LMA Rating	Total LMA Miles						
Reclamation District No. 0827 Elkhorn	U	4.19						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	2.76		2.76	65.87%				
Encroachments					0.52			
Slope Stability	0.01		0.01	0.24%				
Cracking								0.02
LMA Totals:	2.77	0.00	2.77	66.11%	0.52	0.00	0.00	0.02
Unit No. 01 Sacramento River RB	Overall Unit Rating	Total Unit Miles						
RD0827	A	1.35						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
No Items								
Unit Totals:	0.00	0.00	0.00	0.00%				
Unit No. 02 Yolo Bypass LB	Overall Unit Rating	Total Unit Miles						
RD0827	U	2.84						
Rated Item	Maintenance Deficiency				Enforcement		Design & System Obsolescence	
	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
<i>Earthen Levee</i>								
Vegetation	2.76		2.76	97.18%				
Encroachments					0.52			
Slope Stability	0.01		0.01	0.35%				
Cracking								0.02
Unit Totals:	2.77	0.00	2.77	97.54%	0.52	0.00	0.00	0.02

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Fall 2013 Levee Inspection Results

Reclamation District No. 0827 Elkhorn

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			U	

** Non-receipt of Summer or Winter Inspection Reports may effect overall annual rating.

*
SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2013 Levee Inspection Results

Reclamation District No. 0827 Elkhorn

Waterway			Bank	Unit Miles
Unit No. 01 Sacramento River			Right	1.35
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			A	
Date of Inspection	-		10/31/2013 - 10/31/2013	
DWR Inspector	John Williamson		John Williamson	
Accompanied By	Dan Ramos Ramco, RD 827		Dan Ramos Ramco, RD 827	

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Reclamation District No. 0827 Elkhorn

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	Photo
1			Earthen Levee	Operations & Maintenance Manuals	WS	A Ma		° °	° °	5
								DWR ID: DWR_RD0827_01_s_2013_5		
2			Earthen Levee	Emergency Supplies & Equipment	WS	A Ma		° °	° °	7
								DWR ID: DWR_RD0827_01_s_2013_7		
3			Earthen Levee	Flood Preparedness & Training	WS	A Ma		° °	° °	9
								DWR ID: DWR_RD0827_01_s_2013_9		
4	0.01	1.32	Earthen Levee	Vegetation	WS	A Ma	V1 : Control annual grass and weeds on the levee slopes and easements.	38.675090 ° -121.630283 °	38.661315 ° -121.613817 °	1 Y
								DWR ID: DWR_RD0827_01_s_2012_1		
5	0.27	0.27	Earthen Levee	Erosion / Bank Caving	WS	C Ma	E2 : Schedule repair of erosion site prior to the next inspection.	38.672436 ° -121.626851 °	38.672436 ° -121.626851 °	3
								DWR ID: DWR_RD0827_01_s_2012_3		
6	0.31	0.37	Earthen Levee	Trim / Thin Trees	WSA/W	Ob	T2 : Thin trees to allow visibility of the ground and room to flood fight.	38.671959 ° -121.626305 °	38.671376 ° -121.625608 °	2 Y
								DWR ID: DWR_RD0827_01_s_2012_2		
7	0.37	0.37	Earthen Levee	Animal Control	LS	C Ma	A1 : Exterminate rodents and backfill and compact or grout burrows.	38.671200 ° -121.625835 °	38.671200 ° -121.625835 °	12
								DWR ID: DWR_RD0827_01_s_2013_12		
8	0.54	0.54	Earthen Levee	Trim / Thin Trees	LS	N Ma	T5 : Tree stumps.	38.669445 ° -121.623574 °	38.669445 ° -121.623574 °	13 Y
								DWR ID: DWR_RD0827_01_s_2012_13		
9	0.61	0.92	Earthen Levee	Vegetation	WSA/W	Ma	V8 : Environmental Requirements.	38.668873 ° -121.622513 °	38.665750 ° -121.618523 °	22 Y
								DWR ID: DWR_RD0827_01_s_2012_22		
10	0.65	0.65	Earthen Levee	Erosion / Bank Caving	LS	C Ma	E1 : Note and monitor erosion site.	38.668459 ° -121.622350 °	38.668459 ° -121.622350 °	11
								DWR ID: DWR_RD0827_01_s_2013_11		
11	0.90	0.90	Earthen Levee	Encroachments	LS	C En	PR : Prunings	38.665823 ° -121.619047 °	38.665823 ° -121.619047 °	10
								DWR ID: DWR_RD0827_01_s_2013_10		
12	0.92	1.33	Earthen Levee	Vegetation	WSA/W	Ma	V7 : Trees / Woody Vegetation	38.665777 ° -121.618523 °	38.661267 ° -121.613803 °	23 Y
								DWR ID: DWR_RD0827_01_s_2012_23		

* Location	** Rating	+ Issue Type
LS : Land Side	A : Acceptable	Ma : Maintenance Deficiency
WS : Water Side	N : Not Inspected/Rated	Ob : Design & System Obsolescence
CR : Crown	M : Minimally Acceptable	En : Enforcement
	C : Corrected	
	U : Unacceptable	
	A/W : Acceptable but Monitor & Maintain	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.35	10/31/2013 10/31/2013	John Williamson

Levee Mile Report Line	4
Start Levee Mile	0.01
End Levee Mile	1.32
Location	Water Side
Category	Earthen Levee
Item	Vegetation
No unwanted vegetation blocking visibility of the levee slope. Fall 2013	
johngw_f_20131104_285.JPG	



Levee Mile Report Line	6
Start Levee Mile	0.31
End Levee Mile	0.37
Location	Water Side
Category	Earthen Levee
Item	Trim / Thin Trees
Thick vegetation on the waterside. Fall 2011	
johngw_f_20131021_583.jpg	



Levee Mile Report Line	8
Start Levee Mile	0.54
End Levee Mile	0.54
Location	Land Side
Category	Earthen Levee
Item	Trim / Thin Trees
A tree stump on the levee slope. Photo fall 2012.	
johngw_f_20131021_591.jpg	



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.35	10/31/2013 10/31/2013	John Williamson

Levee Mile Report Line	9
Start Levee Mile	0.61
End Levee Mile	0.92
Location	Water Side
Category	Earthen Levee
Item	Vegetation
Revegetaion site with fencing, irrigation and stakes to hold netting. Photo taken spring 2012.	
johngw_f_20131021_592.jpg	



Levee Mile Report Line	9
Start Levee Mile	0.61
End Levee Mile	0.92
Location	Water Side
Category	Earthen Levee
Item	Vegetation
Revegetation site spring 2012.	
johngw_f_20131021_593.jpg	



Levee Mile Report Line	9
Start Levee Mile	0.61
End Levee Mile	0.92
Location	Water Side
Category	Earthen Levee
Item	Vegetation
The revegetation site has grown and blocks visibility. Spring 2013	
johngw_f_20131021_594.JPG	



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Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sacramento River	Right	1.35	10/31/2013 10/31/2013	John Williamson

Levee Mile Report Line	12
Start Levee Mile	0.92
End Levee Mile	1.33
Location	Water Side
Category	Earthen Levee
Item	Vegetation

Trees on the very wide waterside berm. Photo taken spring 2012.

johngw_f_20131021_595.jpg



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2013 Levee Inspection Results

Reclamation District No. 0827 Elkhorn

Waterway			Bank	Unit Miles
Unit No. 02 Yolo Bypass			Left	2.84
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			U	
Date of Inspection	-		10/31/2013 - 11/25/2013	
DWR Inspector	John Williamson		John Williamson	
Accompanied By	Dan Ramos Ramco		Dan Ramos Ramco	

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Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway				Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass				Left	2.84	10/31/2013 11/25/2013	John Williamson

LMR No.	Levee Mile		Category	Item	Location	Rating	Action/Comment	GPS Latitude/Longitude		Issue No.
	Start	End						Start	End	
1	0.01	0.53	Earthen Levee	Encroachments	LS	M En	DT : Ditch	38.676440 ° -121.642747 °	38.669401 ° -121.641417 °	2 Y
DWR ID: DWR_RD0827_02_f_2012_2										
2	0.02	2.78	Earthen Levee	Vegetation	LS	M Ma	V1 : Control annual grass and weeds on the levee slopes and easements.	38.676470 ° -121.642745 °	38.641780 ° -121.620784 °	6 Y
DWR ID: DWR_RD0827_02_f_2013_6										
3	0.11	0.11	Earthen Levee	Trim / Thin Trees	CR	N Ma	T5 : Tree stumps.	38.675236 ° -121.642985 °	38.675236 ° -121.642985 °	4 Y
DWR ID: DWR_RD0827_02_s_2012_4										
4	0.33	2.78	Earthen Levee	Vegetation	WS	A Ma	V1 : Control annual grass and weeds on the levee slopes and easements.	38.672221 ° -121.642244 °	38.641780 ° -121.620784 °	7 Y
DWR ID: DWR_RD0827_02_f_2013_7										
5	1.55	1.55	Earthen Levee	Cracking	CR	U Ob	CR1 : Monitor and have inspected by geotechnical engineer.	38.657402 ° -121.631145 °	38.657402 ° -121.631145 °	1 Y
DWR ID: DWR_RD0827_02_f_2013_1										
6	2.14	2.14	Earthen Levee	Cracking	CR	U Ob	CR1 : Monitor and have inspected by geotechnical engineer.	38.649993 ° -121.625860 °	38.649993 ° -121.625860 °	5 Y
DWR ID: DWR_RD0827_02_f_2013_5										
7	2.31	2.31	Earthen Levee	Slope Stability	LS	M Ma	S1 : Repair slope instability. Inspector Comments: There is cracking along the levee slope not greater than 200 feet. Need to monitor.	38.647703 ° -121.624450 °	38.647703 ° -121.624450 °	24 Y
DWR ID: DWR_RD0827_02_s_2012_24										

*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
M : Minimally Acceptable
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C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.84	10/31/2013 11/25/2013	John Williamson

Levee Mile Report Line	1
Start Levee Mile	0.01
End Levee Mile	0.53
Location	Land Side
Category	Earthen Levee
Item	Encroachments

Ditch runs along the landside toe. Photo fall 2012.

johngw_f_20131021_596.jpg



Levee Mile Report Line	2
Start Levee Mile	0.02
End Levee Mile	2.78
Location	Land Side
Category	Earthen Levee
Item	Vegetation

Tall grasses and weeds block visibility of the levee slope. Fall 2013

johngw_f_20131126_350.JPG



Levee Mile Report Line	3
Start Levee Mile	0.11
End Levee Mile	0.11
Location	Crown
Category	Earthen Levee
Item	Trim / Thin Trees

A tree stump on the levee shoulder. Photo fall 2012.

johngw_f_20131021_598.jpg



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.84	10/31/2013 11/25/2013	John Williamson

Levee Mile Report Line	4
Start Levee Mile	0.33
End Levee Mile	2.78
Location	Water Side
Category	Earthen Levee
Item	Vegetation

The levee has good visibility of the slope. Grasses and weeds have been grazed. Fall 2013

johngw_f_20131126_351.JPG



Levee Mile Report Line	5
Start Levee Mile	1.55
End Levee Mile	1.55
Location	Crown
Category	Earthen Levee
Item	Cracking

A crack along the shoulder is 12 inches deep and runs for 20 feet. Fall 2013

johngw_f_20131104_286.JPG



Levee Mile Report Line	6
Start Levee Mile	2.14
End Levee Mile	2.14
Location	Crown
Category	Earthen Levee
Item	Cracking

The crack is 4-6 inches wide and 3 feet deep with a length of 6 feet. Fall 2013

johngw_f_20131104_287.JPG



*** Location**

LS : Land Side
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable
M : Minimally Acceptable
U : Unacceptable
N : Not Inspected/Rated
C : Corrected
A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2013

Reclamation District No. 0827 Elkhorn

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Yolo Bypass	Left	2.84	10/31/2013 11/25/2013	John Williamson

Levee Mile Report Line	7
Start Levee Mile	2.31
End Levee Mile	2.31
Location	Land Side
Category	Earthen Levee
Item	Slope Stability

A buldge in the levee slope. Photo fall 2012.

johngw_f_20131021_600.jpg



* Location LS : Land Side WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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